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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,800

08/25/2006

Naoya Amino

21713-00035-US1

2201

30678

7590

11/26/2008

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EXAMINER

SCOTT, ANGELA C

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,800	Applicant(s) AMINO ET AL.	
	Examiner Angela C. Scott	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's response of August 13, 2008 has been fully considered. Claims 14-15 have been cancelled and claims 10-13 are pending.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (US 2003/0139523) in view of Hopkins et al. (US 2003/0220437) and Kawakami et al. (US 4,748,168).

Regarding claim 10, Nakamura et al. teaches a rubber composition (§85) comprising 100 parts by weight of rubber containing 50 to 90 parts by weight (§89) of a styrene-butadiene copolymer and another diene rubber such as natural rubber or polybutadiene (§88) and 1 to 50 parts by weight of a conjugated diene rubber gel (§89) that is preferably a styrene-butadiene rubber (§27-28) having a toluene swelling index of 16 to 70 (§85).

Nakamura et al. does not teach that the aromatic vinyl-conjugated diene copolymer rubber has a glass transition temperature of -40° C to -5° C. However, Hopkins et al. does teach emulsion and solution polymerized styrene-butadiene rubbers having a glass transition temperature above -50° C (§41). Nakamura et al. and Hopkins et al. are analogous art because they are from the same field of endeavor, namely that of rubber compositions for tires. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use an emulsion or solution polymerized styrene-butadiene rubber with a glass transition temperature above -50° C, as taught by Hopkins et al., in the rubber composition, as taught by Nakamura et al., and would have been motivated to do so for easier processability of the rubber.

Nakamura et al. also does not teach that the glass transition temperature of the aromatic vinyl-conjugated diene copolymer rubber and the glass transition temperature of the rubber gel satisfy the following formula:

$$TgA - 10 < TgB < TgA + 10$$

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However, Kawakami et al. teaches a blend of styrene-butadiene rubbers having a glass transition temperatures that are close to equal (Col. 2, lines 21-31). Nakamura et al. and Kawakami et al. are analogous art because they are from the same field of endeavor, namely blends of styrene-butadiene rubber components. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a diene with a glass transition temperature being within ten degrees of glass transition temperature of the rubber gel, as taught by Kawakami et al., in the rubber composition, as taught by Nakamura et al., and would have been motivated to do so in order to ensure full compatibility between the two rubber components (Col. 2, lines 32-38).

Regarding claim 11, Nakamura et al. additionally teaches a Mooney viscosity of 50 to 200 (¶82) with 105 and 122 being explicitly disclosed (Table 3).

Regarding claim 12, Nakamura et al. additionally teaches that the conjugated diene rubber gel contains 80 to 99% weight of conjugated diene monomer units, 1 to 20% by weight of aromatic vinyl monomer units, and 0% to 1.5% by weight of crosslinking monomer units (¶20) (polyfunctional vinyl monomer units) (¶37).

Regarding claim 13, Nakamura et al. additionally teaches that the rubber composition further contains 10 to 99% weight of silica and 1-90% weight of carbon black (¶99) out of 10-200 parts by weight of total filler (¶98). The carbon black has a nitrogen adsorption specific surface area of 5 m²/g to 200 m²/g (¶92).

Response to Arguments

Applicant's arguments filed August 13, 2008 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's submitted affidavit, this affidavit is unpersuasive. The intended purpose of the affidavit was to show that only a styrene butadiene rubber gel having the specified Tg, not a styrene butadiene rubber with the specified Tg, would work in the invention. If this were shown, then Kawakami et al. would no longer qualify as a pertinent reference.

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However, this point is moot. Kawakami et al. is used to show that when two rubber components are used in a composition, whether it be a rubber/rubber blend or a rubber/rubber gel blend, it is advantageous to have the glass transition temperature of each component be similar in order to ensure compatibility between the two components. When this teaching is combined with the composition of Nakamura et al., the instant claims are rendered obvious.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 270-3303. The examiner can normally be reached on Monday through Friday, 8:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796

/A. C. S./
Examiner, Art Unit 1796